

REJECTING INTERFERENCE FOR SIMULTANEOUS RECEIVED SIGNALS

ABSTRACT

A wireless data system for reducing interference where simultaneous transmission and reception may occur in the same frequency band. A transmitter may include a Digital-to-Analog Converter (DAC), an up converter to prepare a digital value for transmission. A receiver may include a subtractor circuit, a down converter, an Analog-to-Digital Converter (ADC) to prepare a received analog signal for storage as a digital value. The wireless data system includes an adaptive interface cancellation circuit to generate a delayed replica signal of the original transmitted signal. The subtractor circuit may inject an out-of-phase signal into the receiver front end to cancel the interference in the received signal.